From: Schultz, Josie M - DNR

Sent: Wednesday, January 19, 2022 11:48 AM

To: Rob Hoverman Cc: Brian Kappen

Subject: RE: SIWP NTP - 1404 S Webster 02-05-

Hi Rob – If it's too late to add to this round of sampling, we should be fine to wait until next round.

Thanks

We are committed to service excellence.

Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Josie Schultz

Cell Phone: (920) 366-5685 Josie.Schultz@Wisconsin.gov



From: Rob Hoverman < rhoverman@enviroforensics.com >

Sent: Wednesday, January 19, 2022 11:00 AM

To: Schultz, Josie M - DNR < <u>josie.schultz@wisconsin.gov</u>>
Cc: Brian Kappen < <u>bkappen@enviroforensics.com</u>>
Subject: RE: SIWP NTP - 1404 S Webster 02-05-

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These would have been good to bring up when we discussed the needed scope in the fall not now. It may or may not happen this round.

Thanks,

Rob Hoverman, Northern Midwest Regional Director **EnviroForensics®** | N16W23390 Stone Ridge Dr, Suite G, Waukesha, WI 53188 414.630.0060 | enviroforensics.com

From: Schultz, Josie M - DNR < josie.schultz@wisconsin.gov>

Sent: Wednesday, January 19, 2022 10:17 AM

To: Rob Hoverman < rhoverman@enviroforensics.com>

Cc: Brian Kappen < <u>bkappen@enviroforensics.com</u>>
Subject: SIWP NTP - 1404 S Webster 02-05-

Hi Rob,

Thanks for sending this over. The workplan looks good, with the following comments:

- Include a sump headspace vapor sample and grab a groundwater sample. With how deep groundwater is, I wouldn't be surprised if sumps aren't present, but want to add this in just in case.
- DNR is recommending three rounds of vapor sampling for residential properties. Two rounds may be adequate if one round is taken during worst-case scenario (dropping temperatures, heat running, windy, etc).
- If an upgradient manhole to the site is greater than 400 feet away, I would recommend grabbing a vapor sample from within the on-site building itself (e.g. sewer cleanout).

Please let me know if you have any issues gaining access to the homes. With the comments above, you may accept this email as your notice to proceed with the supplementary site investigation including off-site and on-site vapor sampling, sanitary sewer vapor sampling, and groundwater monitoring.

Thanks, Josie

We are committed to service excellence.

Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Josie Schultz

Cell Phone: (920) 366-5685 Josie.Schultz@Wisconsin.gov



From: Rob Hoverman <rhoverman@enviroforensics.com>

Sent: Wednesday, January 19, 2022 8:20 AM

To: Schultz, Josie M - DNR < <u>josie.schultz@wisconsin.gov</u>> **Cc:** Brian Kappen < <u>bkappen@enviroforensics.com</u>>

Subject: RE: Econo Care Access

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Thanks Josie. We will be sending out access letters tomorrow. Attached is our work plan we are starting from for your information.

Rob Hoverman, Northern Midwest Regional Director
EnviroForensics® | N16W23390 Stone Ridge Dr, Suite G, Waukesha, WI 53188
414.630.0060 | enviroforensics.com

From: Schultz, Josie M - DNR < josie.schultz@wisconsin.gov>

Sent: Tuesday, January 18, 2022 5:00 PM

To: Rob Hoverman < <u>rhoverman@enviroforensics.com</u>>

Subject: RE: Econo Care Access

Hi Rob,

I don't have any contact information for the off-site properties other than the daycare and one gentleman living at 930 Derby Lane. The other properties were sent a letter via mail previously, but no one responded besides 930 Derby.

1324 S Webster You Are My Sunshine Day Care Robert Pries Robertpries28@gmail.com 920-445-9996

930 Derby Lane Gary Parpovich 920-366-1986

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Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Josie Schultz

Cell Phone: (920) 366-5685 Josie.Schultz@Wisconsin.gov



From: Rob Hoverman < rhoverman@enviroforensics.com >

Sent: Tuesday, January 18, 2022 2:09 PM

To: Schultz, Josie M - DNR < josie.schultz@wisconsin.gov>

Subject: Econo Care Access

CAUTION: This email originated from outside the organization.

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Josie,

Can you share any contact information you have for the off site properties regarding EconoCare Cleaners for us to send out access agreements?

Thanks,

Rob Hoverman, Northern Midwest Regional Director
EnviroForensics® | N16W23390 Stone Ridge Dr, Suite G, Waukesha, WI 53188
414.630.0060 | enviroforensics.com

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PREPARED BY

EnviroForensics, LLC N16W23390 Stone Ridge Drive, Suite G Waukesha, WI 53188



December 20, 2021

Josie M. Schultz
Hydrogeologist – Northeast Region Remediation and Redevelopment Team
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54313-6727

Subject: Vapor Intrusion Assessment and Groundwater Monitoring Work Plan

Former Econo-Care Cleaners 1404 S. Webster Avenue Green Bay, WI 54301 BRRTS# 02-05-514372

Dear Ms. Schultz:

EnviroForensics, LLC (EnviroForensics) is pleased present this Work Plan to conduct additional site investigation activities for Econo-Care Cleaners, formerly located at 1404 S. Webster Avenue in Green Bay, Wisconsin (Site). The Site building is currently occupied by a tattoo shop. The proposed additional investigation consists of the following tasks:

- Assess the risk of vapor intrusion (VI) at the Site building and structures within a 100foot radius of the Site;
- Evaluate utility corridors as preferential pathways for vapor migration; and
- Determine current groundwater conditions.

Details and procedures for each task are presented in the following sections.

VAPOR INTRUSION ASSESSMENTS

EnviroForensics will conduct VI assessments at the following properties, highlighted on **Figure 1**:

- 926 Derby Lane (Residential)
- 930 Derby Lane (Residential)
- 1324 S. Webster Avenue (Commercial Daycare)



- 1404 S. Webster Avenue (Commercial Site)
- 1410 S. Webster Avenue (Residential)

EnviroForensics will prepare and submit access agreements and sampling request letters to off-Site property owners for the purpose of conducting VI assessments. Follow-up telephone calls or visits with property owners will also be conducted if needed to secure access. EnviroForensics will request WDNR assistance if these access efforts are ignored or denied.

The assessment at each property will consist of a building inspection followed by one (1) paired indoor air/sub-slab vapor sampling event. The following samples will be collected:

- One (1) indoor air sample from the basement (if present);
- One (1) indoor air sample from the first floor; and
- Two (2) sub-slab vapor samples.

In addition, one sample of outdoor air will be collected during the event to determine background concentrations. Samples will be identified by a unique designation that combines the EnviroForensics project number, property address, and sample type. The following sections describe the indoor air and sub-slab vapor sampling procedures in detail.

Indoor/Background Air Sampling Procedures

Prior to sampling, an inspection of the occupied spaces will be conducted to identify and inventory materials that could potentially contribute to indoor air conditions, unrelated to VI issues. Many common items such as commercially available cleaners and degreasers, small quantities of small engine fuel, furniture polish, cigarette smoke, etc. can affect the quality of indoor air in buildings. Suspect items identified during the inspection will be listed on a presampling inspection form for later reference. A visual inspection will be conducted for cracks or other penetrations of the concrete floor (i.e. floor drains, sumps, etc.) that could be direct conduits for vapors to migrate into the occupied space. The results of all pre-sampling inspection activities will be recorded on the Indoor Air Building Survey Form.

The indoor air samples will be collected using 6-liter vacuum canisters, regulated to withdraw a time-integrated sample. The indoor and outdoor air samples will be collected over a 24-hour time period for the residential locations, and over an 8-hour time period for the commercial location. The sample canisters will be positioned in the breathable space (3-5 feet above the floor) at central locations within the basement (if present) and first floor. The outside background air sample will be collected from an up-wind direction determined at the time of sampling. Initial and final pressure readings will be collected from the vacuum canisters and



recorded on an Indoor Air Field Sampling Form along with all other required information. The vacuum canisters will be individually certified by Envision Laboratory of Indianapolis, Indiana (Envision) for QA/QC purposes.

Air canisters collected during the sampling events will be sent to Envision under appropriate chain of custody documents to be analyzed for tetrachloroethene (PCE) and related compounds according to US EPA Method TO-15.

Sub-Slab Vapor Sampling Procedures

After indoor air sampling has been completed at each structure, Vapor Pin® sampling ports will be installed for the purpose of collecting sub-slab vapor samples.

<u>Sub-Slab Vapor Port Installation</u>

A 5/8-inch hole will be drilled through the concrete slab at each sub-slab sample location using an electric hammer drill. The hole will be oversized to 1.25 inches to a depth of approximately one-half inch. The 1.25-inch hole is the correct size for accepting a small flush-mount cover that will complete the permanent installation. A vacuum cleaner will be utilized during drilling to remove concrete dust produced by the process. Vapor Pin® sampling ports, constructed with a silicon sleeve to provide a mechanical seal between the sample port and the slab, will be installed using a dead blow hammer.

Sub-Slab Field Quality Control Methods

Sub-slab vapor ports will be purged prior to connecting the sampling canister to ensure that the entire sample is representative of sub-slab vapor conditions. To ensure that the collected sub-slab vapor samples are representative of subsurface vapor conditions, leak testing will be performed at each sample port during purging. Leak testing will be performed using the water dam method.

Immediately prior to sample collection, the integrity of the sample tubing and fittings will be tested by conducting a pressure test. The sample canister will be connected to the sampling port with its valve closed. A negative pressure of approximately 10-15 inches of water will be induced on the sampling train with a hand pump and held for approximately 60-seconds while the gauge is monitored visually. Drops in pressure during this procedure will indicate leakage within the sampling train that will require correcting and then re-testing. The results of leak testing and pressure testing will be recorded on field sampling logs.



Sub-Slab Vapor Sampling

The sub-slab vapor samples will be collected through dedicated Teflon-lined polyethylene tubing connected to the sampling port. In accordance with the U.S. Environmental Protection Agency (EPA) Standard Operating Procedure (SOP), approximately two (2) liters of ambient air will be purged from the tubing prior to initiating sample collection. Following purging, sub-slab vapors at each point will be drawn from the end of the tubing using a photo-ionization detector instrument designed to read the concentration of total volatile organic compounds in the parts per billion range. The readings will be recorded on the sample forms and laboratory canister labels. Sub-slab vapor will then be drawn into a 1-liter vacuum sample canister fitted with laboratory supplied regulators that allow a flow rate of approximately 200 ml/min.

The sub-slab vapor samples will be submitted, under appropriate chain-of-custody procedures, to Envision for analysis of PCE and related compounds according to US EPA Method TO-15. The sampling ports will be left in place for potential future sampling.

PREFERENTIAL PATHWAY EVALUATION

Utility corridors can act as preferential pathways for chemical vapor migration, potentially affecting nearby buildings connected to common piping networks. As an initial step in the evaluation, samples of sewer gas will be collected from the sewer main by accessing manholes located:

- In Derby Lane approximately 100 feet northwest of the Site; and
- At The intersection of S. Webster Ave and Derby Lane.

The manhole locations are depicted in **Figure 1**. EnviroForensics will contact the municipality and obtain a permit, if required, to access these manholes and work in the right-of-way. The next nearest manholes in Webster Avenue are more than 400 feet to the north and south of the Site, beyond the distance that could reasonably be expected to be affected by a release from the Site.

Sample collection from the sewer will follow the procedures recommended in WDNR Publication RR-649: *Guidance for Documenting the Investigation of Human-made Preferential Pathways Including Utility Corridors*. All sewer gas samples will be collected using batch-certified clean 1-liter vacuum canisters, regulated to withdraw a sample at no more than 200 milliliter per minute (ml/min). Sewer gas samples will be identified by project number-SSG-manhole location or number.

Former Econo-Care Cleaners Work Plan



The sewer gas samples will be submitted to Envision for analysis of PCE and related compounds according to US EPA Method TO-15. The samples will be delivered or shipped under appropriate chain-of-custody procedures.

GROUNDWATER MONITORING

EnviroForensics proposes to conduct one (1) groundwater monitoring event that includes sample collection from all six (6) existing monitoring wells to get a current snapshot of groundwater conditions. Water table elevation measurements will be collected from all wells (see **Figure 2**) during the monitoring event. Well caps will be removed at least 15 minutes prior to collecting water level measurements to allow groundwater in the monitoring well to equilibrate with the atmospheric pressure. The depth to water in each well will be measured to the nearest 0.01of a foot using an electronic sounding device and recorded on sampling forms prior to sample collection activities.

EnviroForensics anticipates groundwater purging and sampling using standard low-flow methods. If low-flow methods are not suitable due to limited recharge rates, purging and sampling will be completed using new, disposable bailers. Field parameters including pH, specific conductivity, temperature, oxidation-reduction potential (ORP), and dissolved oxygen (DO) will be measured during purging and recorded on a field sampling form. Wells that purge dry will be allowed to recharge for a minimum of four (4) hours prior to sample collection.

Groundwater samples will be transferred directly into laboratory-provided containers containing hydrochloric acid preservative and placed into a cooler with ice. Samples will be submitted under appropriate chain-of-custody procedures to a state-certified laboratory for analysis of VOCs according to U.S. EPA SW Method 8260. For quality assurance/quality control (QA/QC) purposes, duplicate and equipment blank samples will be collected at a frequency of one (1) sample per ten (10) investigative samples during each monitoring event.

Purge water will be temporarily stored in 55-gallon steel drums. Composite samples will be collected directly from the drums for characterization and profiling. Based on the concentrations of contaminants detected in previous monitoring well samples, EnviroForensics anticipates the purge water will be characterized as non-hazardous. A licensed contractor will be retained to remove the drums from the Site for proper disposal.

DATA EVALUATION AND REPORTING

The sub-slab vapor and indoor air sample results will be reported to property owners, occupants, and WDNR within 10 days of receiving laboratory results as required. The reports

5



will consist of a brief letter, a map showing the sampling locations, and a table with a summary of the data and comparisons to regulatory standards.

The sewer gas and groundwater monitoring data will be shared informally with WDNR along with recommendations for follow-up actions. The data will also be incorporated into a comprehensive report to be prepared at the conclusion of the Site investigation.

ASSUMPTIONS AND LIMITATIONS

There are inherent limitations in the evaluation of subsurface conditions and that certain conditions may not be detected. Thus, this investigation cannot provide a guarantee that all possible on-site contamination will be discovered. The proposed cost assumes that permission will be granted by all property owners and/or tenants to conduct investigation activities; that normal conditions will be encountered; and that any delays, obstructions, or other limitations outside the control of EnviroForensics may result in additional cost to the Project. This proposal assumes that the three locations can be sampled during one mobilization event. No other sampling will be performed beyond what is described herein. In the event of these conditions, EnviroForensics will notify you for approval.

If you have any questions or require additional information, please do not hesitate to contact me at (262) 510-0612.

Sincerely,

EnviroForensics, LLC

Rob Hoverman, PG

Senior Project Manager

rhoverman@enviroforensics.com

Former Econo-Care Cleaners Work Plan

Attachments:

Figure 1 – Vapor Intrusion Assessment Locations

Figure 2 – Groundwater Monitoring Well Locations

Copy: Lee Amundson



